CLAIMS

We claim:

1. (Currently Amended) An isolated polynucleotide encoding a polypeptide involved in spiramycin biosynthesis, wherein the sequence of said polynucleotide is:

(a) one of the sequences selected from the group consisting of SEQ ID No:~~,~~ 3,5,7,9, 11, 13, 15, 17, 19,21,23,25,28, 30, 34, 36, 40, 43, 45, 47, 49, 53, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 107, 109,111,113,115, 118,120, 141, 143, 145,147and 149, or

(b) ~~one of the sequences consisting of the variants of the sequences (a),~~

~~(c)~~ one of the sequences derived from the sequences (a) ~~and (b)~~ due to the degeneracy of the genetic code.

2. (Currently Amended) An isolated polynucleotide which hybridizes, under high stringency conditions, with at least one of the polynucleotides as claimed in claim 1 wherein said high stringency conditions include hybridization in Church and Gilbert buffer at a temperature between 55° and 65°C, at least one wash in 2X SSC buffer at a temperature between 55° and 65°C, and at least a second wash in 0.5 SSC buffer at a temperature between 55° and 65°C.

3. (Canceled)

4. (Currently Amended) The isolated polynucleotide as claimed in claim 2 ~~or 3~~, which is isolated from **a** bacterium of the genus *Streptomyces*.

5. (Currently Amended) The polynucleotide as claimed in 1, 2~~, 3~~ or 4, which encodes a protein involved in the biosynthesis of a macrolide.

6. (Currently Amended) The polynucleotide as claimed in claim 2, ~~3, 4 or 5,~~ which encodes a protein having an activity similar to the protein encoded by the polynucleotide with which it hybridizes or with which it exhibits the identity.

7-12, (Canceled)

13. (Currently Amended) A recombinant DNA, which comprises at least one polynucleotide as claimed in one of claims 1~~,2, 3,4, 5 and 6~~ or 2.

14. (Previously presented) The recombinant DNA as claimed in claim 13, wherein said recombinant DNA is included in a vector.

15. (Previously presented) The recombinant DNA as claimed in claim 14, wherein said vector is chosen from bacteriophages, plasmids, phagemids, integrative vectors, fosmids, cosmids, shuttle vectors, BACs and PACs.

16. (Currently Amended) The recombinant DNA as claimed in claim 15, which is ~~chosen from~~ selected from the group consisting of pOS49.1, pOS49.11, pOSC49.12, pOS49.14, pOS49.16, pOS49.28, pOS44.1, pOS44.2, pOS44.4, pSPM5, pSPM7, pOS49.67, pOS49.88, pOS49.106, pOS49.120, pOS49.107, pOS49.32, pOS49.43, pOS49.44, pOS49.50, pOS49.99, pSPM17, pSPM21, pSPM502, pSPM504, pSPM507, pSPM508, pSPM509, pSPM1, pBXLl111, pBXLl112, pBXL1113, pSPM520, pSPM521, pSPM522, pSPM523, pSPM524, pSPM525, pSPM527, pSPM528, pSPM34, pSPM35, pSPM36, pSPM37, pSPM38, pSPM39, pSPM40, pSPM41, pSPM42, pSPM43, pSPM44, pSPM45, pSPM47, pSPM48, pSPM50, pSPM51, pSPM52, pSPM53, pSPM55, pSPM56, pSPM58, pSPM72, pSPM73, pSPM515, pSPM519, pSPM74, pSPM75, pSPM79, pSPM83, pSPM107, pSPM543 and pSPM106.

17-20. (Canceled)

21. (Currently Amended) A host cell into which at least one polynucleotide and/or at least one recombinant DNA and/or at least one expression vector as claimed in one of claims 1~~, 2, 3, 4, 5, 6, 13,~~ or 14~~, 15, 16 and 17~~ has been introduced.

22-66. (Canceled)

67. (Currently Amended) An isolated polynucleotide which is a polynucleotide complementary to

one of the polynucleotides as claimed in claim 1, 2, ~~3,~~ 4 ~~, 5~~ or 6.

68-71. (Canceled)

72. (Currently Amended) A strain of *Streptomyces ambofaciens*, which is the strain OSC2/pSPM75(1) or the strain OSC2/pSPM75(2) deposited with the Collection Nationale de Cultures de Microorganismes ~~(CNCM) [National Collection of Cultures and Microorganisms] Pasteur Institute, 25, rue du Docteur Roux 75724 Paris Cedex 15, France, on October 6, 2003,~~ under the ~~registration~~ accession number CNCM I-3101.

73. (Currently Amended) A recombinant DNA which comprises:

- a polynucleotide which can be obtained by polymerase chain reaction using the following pair of sequence primers:

5' AAGCTTGTGTGCCCGGTGTA.CCTGGGGGAGC 3' (SEQ ID No. 138) and

5' GGATCCCGCGACGGACACGACCGCCGCGCA 3' (SEQ ID No. 139) and, as matrix, the cosmid pSPM36 or the total DNA of *Streptomyces ambofaciens*,

- or a fragment of at least ~~10, 12, 15, 18,~~ 20 ~~to 25, 30, 40, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350, 1400, 1450, 1460, 1470, 1480, 1490 or 1500~~ consecutive nucleotides of this polynucleotide.

74. (Currently Amended) The recombinant DNA as claimed in claim 73 ~~or 91~~, which is a vector.

75. (Currently Amended) The recombinant DNA as claimed in claim ~~73,~~ 74 ~~or 91~~, which is an expression vector.

76. (Currently Amended) A host cell into which at least one recombinant DNA as claimed in one of claims 73, 74, or 75 ~~and 91~~ has been introduced.

77. (Currently Amended) A method of producing a polypeptide, wherein said method comprises the following steps:

a) transforming a host cell with at least one expression vector as claimed in claim 75;

b) cultivating, in a suitable culture medium, said host cell;

c) recovering the conditioned culture medium or a cell extract;

d) separating and purifying said polypeptide from said culture medium in which said host cell has been cultivated or ~~else~~ from the cell extract obtained in step c);

e) where appropriate, characterizing the recombinant polypeptide produced.

78-93. (Canceled)